AUBURN UNIVERSITY

OFFICE OF THE PROVOST
AND VICE PRESIDENT FOR
ACADEMIC AFFAIRS

December 1, 2017

Ms. Margaret Pearson
Alabama Commission on Higher Education (ACHE)
P.O. Box 302000
Montgomery, AL 36130-2000

Ms. Pearson:

Please find attached, for ACHE review, documentation pertaining to Auburn University's proposal of a new undergraduate degree program in Neuroscience, from the College of Liberal Arts. The university plans to begin offering the program in Fall 2018.

In Spring 2017, Auburn University's curriculum committee approved the proposal. The program has received the necessary approvals from both the Office of the Provost and the President. A copy of the proposal is attached, and we are requesting that it be included on the Commission's March 2018 meeting agenda.

Feel free to contact my office if you have any questions or concerns about this request. Thank you for your cooperation and assistance in this matter.

Sincerely,

Timothy Boosinger
Provost and Vice President for Academic Affairs

Attachments: BS in Neuroscience (FORM)

cc: Dr. Constance Relihan
Dr. Drew Clark
Dr. Joe Aistrup

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Alabama Commission on Higher Education

PROPOSAL FOR A NEW DEGREE PROGRAM – NEW APPLICATION TOOL

Please check one: [X] Baccalaureate Program [ ] Graduate Program

A. General Information

1. Institution: **Auburn University**

2. Institutional Contact Person: **Timothy R. Boosinger, DVM, Ph. D.**
   Title: **Provost and Vice President of Academic Affairs**
   Telephone: **334.844.5771**
   E-mail: **provost@auburn.edu**

For questions about specific proposal content, contact:
Dr. Constance Relihan (Associate Provost for Undergraduate Studies)
Telephone: 334-844-4900
Fax: 334-844-5000
E-mail: relihco@auburn.edu

3. Program Identification--
   Field of Study/ Program Title: **Neuroscience**
   Degree: **Bachelor of Science**
   CIP Code: **26.1501**

4. Date of Proposal Submission: **December 2017**

5. Proposed Program Implementation Date: **August 20, 2018**

6. Program Administration:
   Name of College/School: **College of Liberal Arts**
   Name of Dean: **Dr. Joseph Aistrup**
   Name of Department: **Department of Psychology**
   Name of Chair: **Dr. Ana Franco-Watkins**

Note: Please expand all response fields as necessary.

B. Program Purpose and Description

1. In no more than one paragraph describe the purpose of the proposed program. Please also include a brief statement regarding how the program's purpose is related to the University's mission and goals.

   The proposed Bachelor of Science in Neuroscience will connect diverse courses and faculty to create a new degree that examines all aspects of the structure and function of brains and prepares students for further study in professional schools and graduate programs and for careers in health-related sciences. The proposed BS in Neuroscience would address a growing interest in the field of neuroscience and would offer students additional undergraduate research opportunities often necessary for admission into graduate and professional programs. Additionally, by emphasizing the psychological, social, and biological foundations of behavior, the proposed neuroscience program would prepare students to perform well on the Medical College Admission Test and to succeed in medical school. Involving more than 50 faculty members across 17 academic units, the proposed curriculum includes coursework from the College of Liberal Arts, the College of Education, and the College of Sciences and Mathematics. As such, this program directly relates to the Auburn University's Mission statement and goals associated with the commitment for offering high quality programs and education.

2. Please provide a description of the specific kinds of employment opportunities, post-graduate professional degree programs, and other graduate programs that will be available to the graduates.

   Employment opportunities for graduates of the program include diverse careers in health-related sciences, such as Audiology, Clinical Psychology, Dentistry, Food Science, Law (e.g., neuroethics), Medicine (MD, DO), Neuropsychology, Optometry, Pharmacy, Physical Therapy, research and teaching, and Veterinary Science. Graduates of this program will be in an excellent position to further develop their skills in graduate programs.

3. Succinctly list at least four (4) but no more than seven (7) of the most prominent ***student learning outcomes*** of the program. These outcomes should lend themselves to subsequent review and assessment of program accomplishments.

   1) **Demonstrate knowledge of molecular, cellular, and tissue-level organization of the central and peripheral nervous system.**

   2) **Demonstrate knowledge of cellular communication.**

3) **Demonstrate knowledge of the neurophysiology, neuroanatomy, and neurochemistry underlying brain function and development.**

4) **Demonstrate an understanding of the principles by which behavior and cognition are studied and organized.**

5) **Demonstrate the ability to understand interactions among brain neurobiology, cognitive function, and neurobehavioral disorders.**

6) **Demonstrate the ability to orally present and write hypotheses and research plans to test hypotheses that are neuroscience based.**

C. Need for the Program

1. *State need.* Briefly describe why the program is specifically needed for the State of Alabama. (State need is considered a priority in the review process.)

Neuroscience is a rapidly growing area and one that represents some of the most exciting scientific discoveries, but its representation in Alabama has much room to develop. In Alabama, only UAB has an undergraduate neuroscience major. A neuroscience degree at Auburn University will help prepare students for medical school especially given the new Medical College Admission Test (MCAT) emphasis on Psychological, Social, and Biological Foundations of Behavior. Importantly, many disorders pertinent to Alabamians have a neuroscientific connection: closed head injuries, neurodegenerative disorders, developmental and intellectual disabilities, autism, and other diseases of development like schizophrenia. Substance abuse is understood primarily through behavioral neuroscience. Graduates with a neuroscience degree will be able to contribute to spurring Alabama's economic growth via obtaining jobs, where there is currently a work force shortage, which require higher-level abilities in science, technology, and mathematics.

2. *Employment Opportunities.* Based on your research on the employment market for graduates of this program, please complete the following table reporting the total projected job openings (including both growth and replacement demands) in your local area, the state, the SREB region, and the nation. These job openings should represent positions that require graduation from a program such as the one proposed.

Career and College Readiness/Preparation -- Projected Job Openings

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Local	**7**	**7**	**7**	**7**	**7**	**35**
State	**73**	**73**	**73**	**73**	**73**	**365**
SREB	**3,399**	**3,399**	**3,399**	**3,399**	**3,399**	**16,995**
Nation	**5,860**	**5,860**	**5,860**	**5,860**	**5,860**	**29,300**

Please briefly describe your methodology for determining employment opportunities – projected job openings. Be sure to cite any data sources used in formulating these projections. The actual survey instrument, detailed results, and associated data file(s) must be maintained internally by the institution for five years from the implementation date. The survey upon which the proposal is based must be available for ACHE Staff examination upon request for that five year timeframe. The survey instrument, detailed results, or associated data file(s) should not be included in the proposal.)

Local

There is no direct data source for the job growth rate in the immediate area of Auburn University. A growth in the need of neuroscientist/ medical scientists and clinical laboratory technicians/technologists is anticipated as researchers will be needed to study neurological and neurodegenerative diseases such as Alzheimer's, Parkinson's, chronic traumatic encephalopathy (CTE), and multiple sclerosis (MS). Since UAB is the only other state institution offering a neuroscience major and is classified as an R1 research university (highest research activity), we assume at least 7 out of the 73 new state openings would be located in our immediate area.

State

Employment data for Alabama was derived from the 2014–2024 occupational projections for medical scientists and clinical laboratory technicians/technologists. Links to this site were provided by the Alabama Department of Labor. In 2014, there were 5060 jobs available in Alabama. There is an expected growth of 730 in this number by 2024 (14.4% growth rate). We have presented a constant projected growth rate across 10 years.

SREB

Employment data for these states was derived from the 2014–2024 occupational projections for medical scientists and clinical laboratory technicians/technologists. Links to this site were provided by the Alabama Department of Labor. SREB states include Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia and West

Virginia. In 2014, there were 149,840 jobs in the SREB. There is an expected growth of 33,990 in this number by 2024 (22.7% growth rate). We assumed a constant growth rate across 10 years.

National

Employment data for the national level was derived from the 2016–2026 occupational projections for medical scientists and clinical laboratory technicians/technologists according to the federal Bureau of Labor Statistics. Also, employment opportunities for neuroscientists/medical scientists are projected to grow much faster than the average for all occupations in the United States during the period. In 2016, there were 455,700 jobs in the US. There is an expected growth of 58,600 in this number by 2026 (12.9% growth rate). We assumed a constant growth rate across 10 years.

Data Sources

Alabama and SREB Data
http://www.projectionscentral.com/Projections/LongTerm

Bureau of Labor Statistics (Federal)
https://www.bls.gov/ooh/life-physical-and-social-science/medical-scientists.htm
https://www.bls.gov/ooh/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm

3. *Student Demand - Enrollment projection.* Please briefly describe your methodology for determining enrollment projections. If a survey of student interest was conducted, *please briefly describe the survey instrument, number and percentage of respondents, and summary of results.*
(The survey instrument, and associated data file(s) need not be included in the proposal. This proposal information should be maintained for ACHE Staff review for five years from the actual implementation date.)

Student demand was in part based on a Psychology major student survey conducted in Spring 2017 to determine whether students would be interested in pursuing a B.S. degree in Neuroscience. Our survey (n = 74) indicated 33.8% were extremely interested, 12.2% very interested and 24.3% moderately interested. Furthermore, we have many undergraduate students outside of the Psychology major that enroll in our neuroscience classes. They often express interest in the neurosciences, but need a major that would prepare them better for employment opportunities and graduate/professional programs.

Based on survey data of similar sized universities to Auburn, from Ramos et al. (2011) and Stricker (2009, 2011), the proposed degree would fall in the range of 5–30 graduates per year. A conservative estimate for Auburn

would be 50 majors within 3 years drawn from other programs in the university and newly enrolled at Auburn because of this opportunity.

References:

Ramos RL, Fokas GJ, Bhambri A, Smith PT, Hallas BH, Brumberg JC (2011) Undergraduate neuroscience education in the U.S.: an analysis using data from the National Center for Education Statistics. *J Undergrad Neurosci Educ* 9:A66–A70.

Stricker, E.M. (2009). The 2009 Association of Neuroscience Departments and Programs survey of neuroscience graduate, postdoctoral, and undergraduate programs.

Stricker, E.M. (2011). The 2011 Association of Neuroscience Departments and Programs survey of neuroscience graduate, postdoctoral, and undergraduate programs.

D. Specific Rationale (Strengths) for Program

What is the specific rationale (strengths) for recommending approval of this proposal? List no fewer than three (3) and no more than five (5) potential program strengths.

1. The United States Department of Labor occupational outlook for medical scientists, such as neuroscientists, expects a 12.9% increase in jobs (2016–2026). A need for neuroscientists will continue because they help develop treatments and medicine for mental health.

2. The program will bring together 50-plus faculty members in seventeen academic units and courses related to the study of all aspects of the structure and function of brains into a new interdisciplinary (spanning diverse courses and faculty) undergraduate degree program in neuroscience at Auburn University.

3. The proposed neuroscience program would prepare students to perform well on the Medical College Admission Test and to succeed in medical school especially given the new MCAT emphasis on Psychological, Social, and Biological Foundations of Behavior. Graduates of the program will be in a strong position for careers in health-related sciences.

4. The proposed program would address a growing interest in the field of neuroscience and would offer students additional undergraduate research opportunities often necessary for admission into competitive graduate and professional programs.

5. Currently, there are only 7 public universities in the southeastern US that offer neuroscience as a major compared to 74 public universities in the entire US (9.5%). Census data indicate that the southeastern US comprises over 17% of the US population, demonstrating a need for more public universities that offer neuroscience as a major in the southeast US.

E. Similar Programs

Using the ACHE Academic Program inventory found at
http://www.ache.state.al.us/Content/Departments/Instruction/StudentInfo.aspx
List below all programs at the same degree level (by institution) that utilize the same 6-digit CIP code as the one being requested in the program proposal.

Also, list any programs at other CIP codes that may be offering similar instruction.

If there are no similar programs place a "0/none" by 1. in the listing directly below.

Note: Institutions should consult with ACHE Staff during the NISP phase of proposal development to determine what existing programs are considered duplicative of the proposed program.

The following institutions offer similar programs at this level:

1. University of Alabama at Birmingham (UAB) – BS Neuroscience

There were no other programs found using similar CIP codes.

Please add numeration and list additional similar programs, if applicable.

If the program duplicates, closely resembles, or is similar to another program already offered in the State, provide justification for that duplication.
Also, if a graduate program, please identify and list any similar programs at institutions in other SREB states.

There is only one existing undergraduate Neuroscience program in the state of Alabama located at the University of Alabama at Birmingham (UAB). http://www.uab.edu/cas/neuroscience/

Auburn's Neuroscience major would be similar to UAB in that they share essential courses for an undergraduate neuroscience major common to neuroscience majors at other universities. To elaborate, a recent survey of program directors in neuroscience found that the most essential courses for the undergraduate major in neuroscience were (in order of importance) an introduction to biology, neuroscience, organic/inorganic chemistry, and calculus (Boitano & Deyal, 2011). Another study (Amherst, 2011) compared neuroscience curricula nationally and noted that a pre-med basic science

curriculum, supplemented with specific coursework in psychology and neuroscience, were the prevalent models. Specific neuroscience courses varied with faculty teaching and research interests. Hence, no two programs are alike. Given a "common" pre-med curriculum (Chemistry, Biology, Physics, Math), there is variability in required "specialty" courses in the neurosciences, attributable to the areas of expertise of each institution's respective faculty. The same is true for the proposed neuroscience and psychology coursework at Auburn.

Given the level of interest (see C.3) by current undergraduates at Auburn and the expected job growth (see C.2) we do not see the proposed degree as infringing on or made unnecessary by UAB's program. In addition, some faculty in the neurosciences at AU and UAB already successfully collaborate on research and teaching and the proposed degree can help to strengthen the neurosciences in Alabama (e.g. see F).

F. Collaboration With Other Institutions/Agencies

Does the institution plan on collaborating with other institutions in the delivery of this program?

☐ Yes No ☒ x

If yes, please indicate below which institutions and describe the basis of this collaboration.

If no, please indicate your reasons why.

At this time there are no immediate plans to involve collaboration with other universities. However, in the future we plan to work with the Alabama Advanced Imaging Consortium (AAIC) to enhance student experiences with opportunities to shadow neuroscientists and receive specialized training at other universities within the AAIC. http://www.alabamaadvancedimaging.org/ The purpose of the AAIC is to promote collaboration and support between research centers devoted to neuroimaging in the State of Alabama.

G. Curriculum

1. Program Completion Requirements: (Enter a credit hour value for all applicable components, write N/A if not applicable)

Credit hours required in major courses	34
Credit hours required in minor	0
Credit hours in institutional general education or core curriculum	52
Credit hours required in support courses	33
Credit hours in required or free electives	1
Credit hours for thesis or dissertation	0
Total credit hours required for completion	**120**

2. Will this program be related to other programs at your institution?

If so, which ones and how?

This Neuroscience degree program will be supported partly by the University's Core Curriculum course requirements required for all undergraduate degrees at Auburn University. In addition to the AU Core and the College of Liberal Arts (CLA) core, courses in Psychology in CLA will be required. Outside of CLA, Biology and Chemistry courses offered in the College of Science and Mathematics will be required. Neuroscience is interdisciplinary, correspondingly students may garner research experiences in research laboratories and through Directed Studies engaged in neuroscience spread out through several colleges in the university.

3. Please identify any existing program, option, concentration or track that this program will replace at your institution.

None

4. Is it likely that this program will reduce enrollments in other graduate programs at your institution? If so, please explain.

NA

5. If this is a graduate program, please list any existing undergraduate programs at the institution which are directly or indirectly related to the proposed graduate program. If this is a doctoral proposal, also list related master's programs at your institution.

NA

6. Please complete the table below indicating the proposed program's courses. Include the course number, and number of credits. (If feasible/useful, please group courses by sub-headings within the table.)

Course Number and Title	Number of Credit Hours	* If New Course
Freshman Year Fall		
ENGL 1100 English Composition I	3	
MATH 1610 Calculus I	4	
CHEM 1030 Fundamental Chemistry I[1]	3	
CHEM 1031 Fundamental Chemistry I Lab	1	
BIOL 1020/1021 Principles of Biology + Lab	4	
Freshman Year Spring		
PSYC 2010 Introduction to Psychology	3	
ENGL 1120 English Composition II	3	
CHEM 1040 Fundamental Chemistry II[1]	3	
CHEM 1041 Fundamental Chemistry II Lab	1	
BIOL 1030/1031 Principles of Biology + Lab	4	
LBAR 2010 Liberal Arts Careers Preparation	2	
Sophomore Year Fall		
PSYC 2130 Analytics for Soc & Beh Sci	4	
PSYC 3530 Sensation & Perception	3	
CHEM 2070 Organic Chemistry I	3	
CHEM 2071 Organic Chemistry I Lab	1	
CORE HISTORY I[2]	3	
PHYS 1500 General Physics I	4	
Sophomore Year Spring		
PSYC 3510 Behavioral Neuroscience	3	
CORE HISTORY II[2]	3	
CHEM 2080 Organic Chemistry II	3	
CHEM 2081 Organic Chemistry II Lab	1	
PHYS 1510 General Physics II	4	
PHIL 1030 Ethics and the Health Sciences	3	
Junior Year Fall		

PSYC 3520 Psychology of Learning	3	
BIOL 3000 Genetics	4	
CORE LITERATURE[2]	3	
CORE SOCIAL SCIENCE[2]	3	
Junior Year Spring		
PSYC 3540 Cognitive Psychology	3	
PSYC 3620 Cognitive Neuroscience	3	
COMM 1000 Public Speaking	3	
CORE SOCIAL SCIENCE[2]	3	
Senior Year Fall		
PSYC 5620 Drugs, Brain and Behavior	3	
CORE FOREIGN LANGUAGE[2]	4	
BIOL 4100 Cell Biology	3	
BIOL 4100 Cell Biology Laboratory	2	
Major Electives	3	
Senior Year Spring		
CORE FOREIGN LANGUAGE[2]	4	
CORE FINE ARTS[2]	3	
Major Electives	6	
Free Elective	1	

Major Elective Courses:
BCHE 5180, 5190; BIOL 2500, 2510; KINE 3650, 4133; PHIL 3510; PSYC 3120, 3560, 3580, 3610, 3630, 3970, 4080, 4250, 4270, 5610. MAX of 6 hours from PSYC 3910, 4930, 4967, 4997. All other departmental Directed Studies, Undergraduate Research, Honors Special Problems, Thesis, and Special Topics can be approved if relating to neuroscience (see advisor). Student must either pass the computer competency test or take COMP 1000 as one of their electives.

[1] The Chemistry 1110/1111-1120/1121 sequence can substitute for CHEM 1030/1031-1040/1041.
[2] Options for courses labeled CORE are in the Auburn University Bulletin under Core Curriculum

7. Enumerate and briefly describe any additional requirements such as preliminary qualifying examination, comprehensive examination, thesis, dissertation, practicum or internship, some of which may carry credit hours included in the list above.

There are no additional requirements other than Auburn University application guidelines.

8. Does the program include any options/concentration. If so, please describe the purpose and rationale and list the courses in the option.

No options or concentrations are required or offered for this degree.

9. State and list if the program has any special admission requirements. If none, state: "The program has no special admission requirements".

The program has no special admission requirements.

H. Program Review and Assessment

In the final analysis, the institution and its governing board are accountable for the quality, utility and productivity of this and all other programs of instruction.

With this in mind, please describe the procedures that will be used in assessing the program's outcomes.

Be sure to include:
1. An assessment process for the student learning outcomes;

The assessment plan is based on surveying existing undergraduate neuroscience programs across colleges and universities to identify common core competencies. In addition, essential core competencies were identified in an article published by *The Journal of Undergraduate Neuroscience Education* (Kerchner, Hardwick, and Thornton, 2012). The article is based on a survey of 203 faculty from 128 institutions. At Auburn University, like other universities, the neuroscience curriculum bridges a number of different departments that contribute to learning outcomes. With this background, the following student learning outcomes and assessment methods associated with the Neuroscience, BS program were derived.

Student Learning Outcomes

1. Student Learning Outcomes

Below are the current set of student learning outcomes.

Students graduating from the Neuroscience, BS program will successfully:

1. **Answer questions about the molecular, cellular, and tissue-level organization of the central and peripheral nervous system**
2. **Answer questions about cellular communication**
3. **Answer questions about the properties of individual cells to their function in neural systems**
4. **Answer questions on how the interaction of cells and neural networks lead to cognition and behavior**
5. **Orally present and write hypotheses and research plans to test hypotheses that are neuroscience based**

2. Comprehensive Outcomes

The student learning outcomes reflect the current scope of the Neuroscience program and cover core competencies. These competencies cover basic knowledge, acquired depth, and critical thinking and analytical reasoning skills as they relate to the neurosciences. Oral and written competencies are also acquired. The rationale for the competencies is based on Kerchner et al., 2012 article on assessing undergraduate neuroscience curricula.

Kerchner, M., Hardwick, J. C., and Thornton (2012). Identifying and using 'core competencies' to help design and assess undergraduate neuroscience curricula. *The Journal of Undergraduate Neuroscience Education*, *11*, A27-A37.

3. Communicating Outcomes

We plan to have an annual summer faculty retreat. The retreat will be for all faculty involved in the neuroscience program. During this retreat we will discuss student learning outcomes and our results. At the start of each semester we plan to have a 2-3 hour long session to present and explain the student learning outcomes to neuroscience majors.

Curriculum Map

4. Below is the Curriculum Map. The required courses specified below have clear alignment and coverage of some portion of the Student Learning Outcomes.

	(1) Central and Peripheral Nervous System	(2) Cellular Communication	(3) Cells and Neural System	(4) Networks, Cognition, Behavior	(5) Oral/ Writing Hypothesis Testing
PSYC 2010 – Intro Psyc	1	1	1	1	
PSYC 2130 – Analytics					3
PSYC 3510 – Behav Neur	3	3	3	3	3
PSYC 3520 – Learning				2	1
PSYC 3530 - Sens and Per	3	2	3	3	3
PSYC 3540 – Cognition	1	1	1	2	1
PSYC 3620 Cog Neuro	3	3	3	3	3
PSYC 5620 – Drugs, Brain, Behavior	3	3	3	3	3
1-Introduction, 2-Reinforcment, 3-Emphasis					

Measurement

Data collection efforts occur during classes. We will also use a senior survey to capture learning outcomes toward the end of senior year.

Measure	Outcome(s) Assessed	Frequency	Type	Data Collection	Desired Results
Exams in courses	1,2,3,4	Data collected most semesters	Direct Measure	Course Embedded	All students should score 80% or better on exams
Papers/Presentations in courses	5	Data collected most semesters	Direct Measure	Course Embedded	All students should score 80% or better on paper/presentation
Senior Survey	1,2,3,4	Once	Direct Measure	Online Before Graduation	All students should score 80% or better

Exams, Papers and Presentations

Similar to other colleges and universities we will use well established assessment measures in classes. These measures will gather evidence from student work to include exams, papers, and presentations. These assessment measures will assure that all our student learning outcomes are measured.

Senior Survey

The senior survey combines several assessment measures to further assess student learning outcomes (1, 2, 3, and 4). The first measure is the Neuroscience Print Exposure (NPE) Measure. This measure requires students to identify real from pseudo neuroscience terms. Scores range from 0 to 100 with chance at 50. The Department of Psychology has a rich history of using such a measure. The second measure is the Neuroscience Content Measure (NCM). The NCM consists of 20 multiple choice questions to further test the specific content of the student learning outcomes. The third measure is indirect and consists of a self-report survey on whether students believe they have met the program's core competencies. We will also collect information related to program outcomes and student attitudes toward the neuroscience program.

Use of Results

Purposeful Reflection and Action Plan

Each summer the program director working with a neuroscience assessment committee will evaluate the assessment measures. The

evaluation will be used to determine if the program is meeting the student learning outcome goals and the committee will make recommendations to the faculty teaching in the neuroscience curriculum. It could include a change in learning outcomes or content for specific courses

2. A follow-up plan to determine accomplishments of graduates such as obtaining relevant employment or being admitted to a masters or doctoral program (graduate or professional).

As part of the Senior Survey we will collect information regarding employment and admittance in graduate or professional programs. In addition we will collect contact information to maintain an alumni support group.

I. Accreditation

If there is a recognized (USDE or CHEA) or other specialized accreditation agency for this program, please identify the agency and explain why you do or not plan to seek accreditation. If there is no accrediting or similar body for this degree program state as such in your response.

There is no accrediting or similar body for this degree program.

J. Instructional Delivery Method

1. Describe which instructional delivery methods will be utilized in delivering this program.

The instructional delivery methods will be traditional lecture and laboratory courses at Auburn University.

2. If distance technology is being utilized, indicate an approximate percent of the total program's courses offered that will be provided by distance education____0__ %

3. If distance education is not being utilized, please explain why not.

All courses are approved for in-class instruction. However, in the future if distance education courses are developed within the curriculum they will be included.

K. Resource Requirements

1. *Faculty.* Do not attach the curriculum vitae of each existing or additional faculty members to this proposal. (The institution must maintain and have current and additional primary and support faculty curriculum vitae available upon ACHE request for as long as the program is active.) *Please do provide a brief summary of Faculty and their qualifications specific to the program proposal.*

a) Please provide faculty counts for the proposed program:

Status	Faculty Type	
	Primary	Support
Current- Full Time	6	58
Current-Part Time	0	0
Additional-Full Time (to be hired)	2	0
Additional-Part Time (to be hired)	0	0

Primary Faculty in Psychology

1. **Dr. Dominic Cheng received his Ph.D. from University of Wisconsin-Milwaukee. His expertise is cognitive neuroscience and neural circuitry underlying basic forms of learning using fMRI and transcranial direct current stimulation. He has been teaching courses in neuroscience for 2 years.**
2. **Dr. Christopher Correia received his Ph.D. from Syracuse University. His expertise is in understanding the mechanisms of use and abuse of psychoactive substances. He has been teaching courses on drugs and behavior for 16 years.**
3. **Dr. Ana Franco-Watkins received her Ph.D. from University of Maryland. Her expertise is on decision making processes. She has been teaching courses on decision making for 11 years.**
4. **Dr. Jeffrey Katz received his Ph.D. from Tufts University. His expertise is in cognitive neuroscience and comparative cognition. He has been teaching courses in neuroscience for 18 years.**
5. **Dr. Chris Newland received his Ph.D. from Georgia Institute of Technology. His expertise is on the behavioral impact of drugs and environmental contaminants that act on the brain. He has been teaching courses in neuroscience for 29 years.**
6. **Dr. Jennifer Robinson received her Ph.D. Case Western Reserve University. Her expertise is in fMRI and psychophysiological techniques to investigate emotion and cognition. She has been teaching courses in neuroscience for 5 years.**

Support Faculty

Spread throughout the university there are currently 58 faculty that will contribute to the proposed program by offering additional research and teaching support in neuroscience. Art(2), Biochemistry(1), Biology(6), Communication Disorders(1), Consumer and Design Sciences(1), Electrical & Computer Engineering(5), HDFS(6), Kinesiology(2), Mathematics and Statistics(1), Nutrition(1), Pharmacy(11), Philosophy(1), Political Science(1), Special Education(1), Veterinary Medicine(18)

b) Briefly describe the qualifications of new faculty to be hired.

The Department of Psychology is in the process of hiring two new tenure-track faculty for Fall 2018. These are existing faculty lines in the department that are being hired now with designation to contribute to the proposed program by offering additional research and teaching support. One faculty will have expertise in Behavioral Neuroscience and the other in Clinical Neuroscience.

2. Equipment. Will any special equipment be needed specifically for this program?

[ ] Yes [x] No

If "Yes", please list:

The cost of the new equipment should be included in the table following (Section K.).

3. Facilities. Will any new facilities be required specifically for the program?

[ ] Yes [x] No

If "Yes", please list. Only new facilities need be listed. Their cost should be included in the table following (Section K.).

4. Library. Are there sufficient library resources to support the program?

[x] Yes [ ] No

Please provide a brief description of the current status of the library collections supporting the proposed program.

The Auburn University library has current digital and physical collections of journals in Neuroscience, Psychology, and Biology to support the needs of the proposed program.

If "No", please briefly describe how any deficiencies will be remedied; include the cost in the table following (Section K.).

5. Assistantships/Fellowships. Will you offer any assistantships specifically for this program?

[ ] Yes [x] No

If "Yes", how many assistantships will be offered? Be sure to include the amount in the table following.

[ ] Number of assistantships offered

Be sure to include the cost of assistantships in the table following (Section K.).

6. Program Budget. The proposal projected that a total of $ [0.00] in estimated new funds will be required to support the proposed program.

A projected total of $ [2,687,160] will be available to support the new program.

L. New Academic Degree Program Proposal Summary Form

- In the following "NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY" table, please provide a realistic estimate of the costs of the program.
- This should only include the additional costs that will be incurred, not current costs.
- Indicate the sources and amounts of funds available for the program's support.
- DO NOT LEAVE ANY PORTION/SOURCES OF THE NEW FUNDS OR FUNDS AVAILABLE BLANK. ENTER "$0" IF THERE ARE NO NEW FUNDS NEEDED OR NO FUNDS AVAILABLE.
- THERE MUST BE AN ACTUAL DOLLAR AMOUNT PROVIDED FOR TUITION, SINCE THOSE FIGURES REPRESENT PROJECTED ENROLLED STUDENTS.
- **If it is stated that new funds are requested or if it is a reallocation of resources, please explain directly below from what source(s) the funds for the proposed new program, (e.g. faculty, equipment, etc.) will be attained.**

- **If tuition is used to support the program, what start-up revenue source will be used to initiate the program.**

New funds are not required because this proposal includes existing courses and current faculty and staff only. Faculty and staff salaries are already deployed to support the current instruction in Psychology and other participating departments.

Also, include enrollment and completer projections.

- New enrollment headcounts are defined as **unduplicated** counts across years. For example, if "Student A" would be initially enrolled in the program in year 2, and again is enrolled in the program in years 4 and 5; "Student A" is only counted in the new enrollment headcount in year 2.

- Total enrollment headcounts represent the actual number of students enrolled (both part-time and full time each year. This is a **duplicated** count).

NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

INSTITUTION: Auburn University

PROGRAM: Bachelor of Science - Neuroscience

ESTIMATED NEW FUNDS REQUIRED TO SUPPORT PROPOSED PROGRAM

	Year 1	Year 2	Year 3	Year 4	Year 5	TOTAL
FACULTY	0	0	0	0	0	0
LIBRARY	0	0	0	0	0	0
FACILITIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
STAFF	0	0	0	0	0	0
ASSISTANTSHIPS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0

SOURCES OF FUNDS AVAILABLE FOR PROGRAM SUPPORT

	Year 1	Year 2	Year3	Year 4	Year 5	TOTAL
INTERNAL REALLOCATIONS	0	0	0	0	0	0
EXTRAMURAL	0	0	0	0	0	0
TUITION	164,520	329,040	548,400	822,600	822,600	2,687,160
TOTAL	164,520	329,040	548,400	822,600	822,600	2,687,160

ENROLLMENT PROJECTIONS AND DEGREE COMPLETION PROJECTIONS

Note: "New Enrollment Headcount" is defined as unduplicated counts across years.

	Year 1	Year 2	Year 3	Year 4	Year 5	5-YEAR AVERAGE
FULL TIME HEADCOUNT	15	30	50	75	75	49
PART TIME HEADCOUNT	0	0	0	0	0	0
TOTAL HEADCOUNT	15	30	50	75	75	49
NEW ENROLLMENT HEADCOUNT	15	15	20	25	25	20

						AVERAGE
DEGREE COMPLETION PROJECTIONS	0	0	0	15	20	7